

CLAIMS

1. A method of dealing with a connection context request to establish a connection between a mobile station (MS) and a network gateway element, the method including the steps of:
- 5 (a) receiving in the gateway element a connection context request;
- (b) determining in the gateway element whether binding information is required;
- 10 (c) determining whether binding information was supplied with the connection context request; and
- (d) in the event that the binding information is required and was not supplied, responding to the request
- 15 on the basis of a policy determined by the operator of the network.
2. A method according to claim 1, wherein step (d) includes supplying a different resource level from that requested in the connection context request in the event
- 20 the binding information is required and was not supplied.
3. A method according to claim 1 or 2, further including the steps of:
- 25 (f) activating the connection context; and
- (g) informing the MS that charging will differ from that associated with the resource level requested.
4. A method according to any one of the preceding claims, wherein the resource level is a Quality of Service (QoS) parameter.
- 30 5. A method according to claim 4, wherein step (e) includes downgrading the QoS.

6. A method according to claim 4 or 5, further including the step of informing the MS of the change in QoS.

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7. A method according to claim 1, wherein reducing the resource level includes the step of rejecting the connection context request.

10 8. A method according to any one of the preceding claims, wherein the context request is a packet data protocol (PDP) context request.

15 9. A method according to any one of the preceding claims, wherein the network gateway element is a serving GPRS support node (SGSN) or a gateway GPRS support node (GGSN).

20 10. A method according to any one of the preceding claims, including the step, prior to step (a), of providing the network gateway element with access to a list of Access Point Names (APNs) that are IP Multimedia Subsystem related, and wherein step (c) includes determining whether the connection context request refers
25 to an APN on the list.

11. A method of dealing with a connection context request to establish a connection between a mobile station (MS) and a network gateway element, the method
30 including the steps of:

(a) receiving in the network gateway element a connection context request, the connection context request including binding information and traffic flow

parameters, the traffic flow parameters being indicative of intended packet filtering;

- (b) sending an authorisation request from the network gateway element to a network policy control element;
- 5 (c) receiving, in the network gateway element, a packet classifier from the policy control element in response to the authorisation request, the packet classifier being intended for use by the gateway element;
- (d) determining whether a conflict exists between
- 10 attribute values of the traffic flow parameters and attribute values of the packet classifier; and
- (e) in the event that there is a conflict, informing the MS.

- 15 12. A method according to claim 11, further including the step, after step (d), of:
 - (f) in the event there is a conflict, rejecting the connection context.

- 20 13. A method according to claim 11, further including the steps of determining suitable traffic flow parameter values and informing the MS of those values, in the event the conflict exists.

- 25 14. A method according to claim 11, further including the steps, when the conflict exists, of:

- determining revised traffic flow parameter values to overcome the conflict;

- accepting the connection context; and

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 - informing the MS of the revised traffic flow parameters.

- 15. A method according to claim 13 or 14, wherein the MS is informed via a protocol configuration option message.

16. A method according to any one of claims 11 to 15, wherein the context request is a packet data protocol (PDP) context request.

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17. A method according to any one of claims 11 to 16, wherein the network gateway element is a serving GPRS support node (SGSN) or a gateway GPRS support node (GGSN).

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18. Mobile telecommunications network apparatus for dealing with a connection context request from a mobile station MS, the apparatus including a network gateway element configured to:

- 15 (a) receive a connection context request;
(b) determine whether binding information is required;
(c) determine whether binding information was supplied with the connection context request; and
(d) in the event that the binding information is
20 required and was not supplied, responding to the request on the basis of a policy determined by the operator of the network.

19. Apparatus according to claim 18, configured to
25 supply a different resource level from that requested in the connection context request in the event the binding information is required and was not supplied.

20. Apparatus according to claim 18 or 19, configured
30 to:

- (f) activate the connection context; and
(g) inform the MS that charging will differ from that associated with the resource level requested.

21. Apparatus according to any one of claims 18 to 20, wherein the resource level is a Quality of Service (QoS) parameter.
- 5 22. Apparatus according to claim 21, configured, in step (e), to downgrade the QoS.
23. Apparatus according to claim 21 or 22, configured to inform the MS of the change in QoS.
- 10 24. Apparatus according to claim 18, wherein reducing the resource level includes rejecting the connection context request.
- 15 25. Apparatus according to any one of claim 18 to 24, wherein the context request is a packet data protocol (PDP) context request.
- 20 26. Apparatus according to any one of claims 18 to 25, wherein the network gateway element is a serving GPRS support node (SGSN) or a gateway GPRS support node (GGSN).
- 25 27. Apparatus according to any one claims 18 to 26, wherein the network gateway element has access to a list of Access Point Names (APNs) that are IP Multimedia Subsystem related, the apparatus being configured to determine whether the connection context request refers to an APN on the list.
- 30 28. Mobile telecommunication network apparatus for dealing with a connection context request from a mobile station (MS), the apparatus including a network gateway element configured to:

- (a) receive a connection context request, the connection context request including binding information and traffic flow parameters, the traffic flow parameters being indicative of intended packet filtering;
- 5 (b) send an authorisation request from the network gateway element to a network policy control element;
- (c) receive a packet classifier from the policy control element in response to the authorisation request, the packet classifier being intended for use by the gateway
- 10 element;
- (d) determine whether a conflict exists between attribute values of the traffic flow parameters and attribute values of the packet classifier; and
- (e) in the event that there is a conflict, inform the
- 15 MS.

29. Apparatus according to claim 28, being configured, in the event there is a conflict, to reject the connection context.

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30. Apparatus according to claim 28, being configured, in the event there is a conflict, to determine suitable traffic flow parameter values and informing the MS of those values.

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31. Apparatus according to claim 28, being configured, in the event there is a conflict, to:

determine revised traffic flow parameter values to overcome the conflict;

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accept the connection context; and

inform the MS of the revised traffic flow parameters.

32. Apparatus according to claim 29 or 30, configured to inform the MS via a protocol configuration option message.

5 33. Apparatus according to any one of claims 28 to 32, wherein the context request is a packet data protocol (PDP) context request.

34. A method according to any one of claims 28 to 33,
10 wherein the network gateway element is a serving GPRS support node (SGSN) or a gateway GPRS support node (GGSN).

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